

REMARKS

In this paper, claims 1, 20 and 22 are currently amended, and claims 39-43 have been added. After entry of the above amendment, claims 1-43 are pending.

The applicant appreciates the allowance of claims 10-12 and 31-33.

The Board of Patent Appeals and Interferences rejected claims 1-7, 13-28 and 34-38 under 35 U.S.C. §112 as not complying with the written description requirement. The language objected to by the Board had been deleted from claims 1, 20 and 22.

Independent claims 1, 20 and 22 have been amended to clarify that, for at least one shift command requesting a shift from an origin speed stage to a destination speed stage that requires the operation of both the first transmission and the second transmission, the first transmission and the second transmission are set temporarily in a speed stage outside of a range between the origin speed stage and the destination speed stage. For example, in the embodiment of gear shifting shown in Table 2 of the specification, a request to shift one step down when the chain currently engages the 46-tooth front sprocket and the 33-tooth rear sprocket with a gear ratio of 1.39 (the origin speed stage) ultimately causes the chain to engage the 34-tooth front sprocket and the 29-tooth rear sprocket with a gear ratio of 1.17 (the destination speed stage). If the front derailleur is operated first, then the chain will engage the 34-tooth front sprocket and the 33-tooth rear sprocket with a gear ratio of 1.03, which is outside the range 1.17-1.39. Similarly, if the rear derailleur is operated first, then the chain will engage the 46-tooth front sprocket and the 29-tooth rear sprocket with a gear ratio of 1.59, which also is outside the range 1.17-1.39.

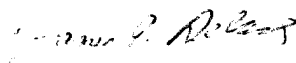
Claims 1, 20 and 22 now recite a system wherein at least one illegal gear shift occurs as defined by the Browning patent. As noted in previous responses, Browning teaches away from such illegal gear shifts.

New claim 42 is based on claim 1 but instead clarifies that the information generated by the transmission control unit is based on the least number of movements of the first transmission and the second transmission to achieve the destination speed stage. Support for this feature is found at

paragraph [0017], lines 2-5 of the specification. Neither Ethington nor Browning uses this criteria to generate shift signals.

Accordingly, it is believed that the rejection under 35 U.S.C. §112 has been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "James A. Deland", is written over a horizontal line.

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